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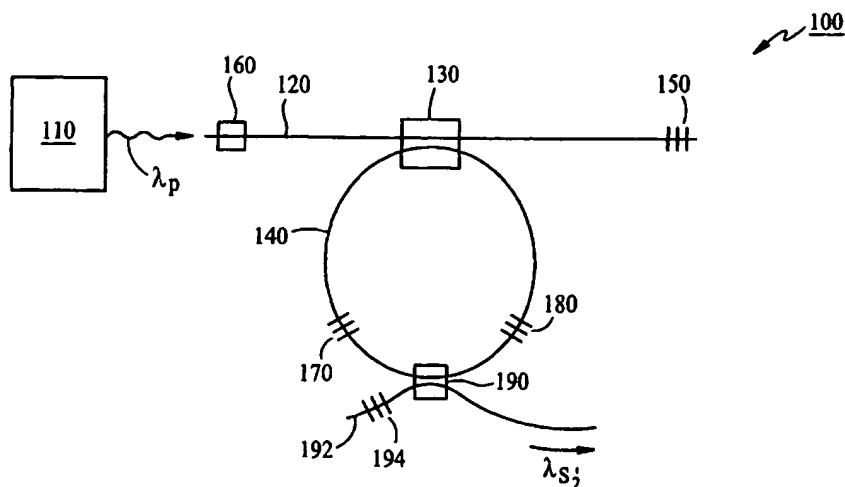
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[Continued on next page]

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(57) Abstract: The invention features, for example, a system (100) including an energy source, (110) two fibers, (120)(140) a WDM (130) and a fiber Bragg grating (180). The first fiber (120) is coupled (160) to the energy source (110) so that pump energy from the energy source can be transferred to the first fiber (120). The WDM (130) is capable of transferring the pump energy from the first fiber (120) to the second fiber (140). The fiber Bragg grating (180) is in the second fiber, (140) and is capable of substantially reflecting energy at a predetermined wavelength. The first fiber (120) is devoid of a fiber Bragg grating capable of substantially reflecting energy at a predetermined wavelength. The pump energy interacts with the material from which the fiber is made and as a result Raman stoke transitions occur within the fiber. This energy can be used, for example, to enhance the signal in an optical fiber.



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